

No.

9400197



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Minnesota Agricultural Experiment Station

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE SEED (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Faribault'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirtieth day of November in the year of our Lord one thousand nine hundred and ninety-five.

Attest:

Marsha A. Hansen
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

John G. Plitman
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(INSTRUCTIONS ON REVERSE)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) Minnesota Agricultural Experiment Station		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO. M86-1322	3. VARIETY NAME Faribault
4. ADDRESS (street and no. or R.F.D. no., city, state, and ZIP) University of Minnesota 220 Coffey Hall 1420 Eckles Avenue St. Paul, MN 55108		5. PHONE (include area code) (612) 625-4211	FOR OFFICIAL USE ONLY PVPO NUMBER 9400197
6. GENUS AND SPECIES NAME Glycine max	7. FAMILY NAME (Botanical) Leguminosae		
8. CROP KIND NAME (Common Name) Soybean	9. DATE OF DETERMINATION November 16, 1993		F I L I N G Date June 10, 1994 Time <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) State Agricultural Experiment Station			F E E S Filing and Examination Fee: \$ 2,150 + 175.00 Date June 10, 1994 + 7/5/94
11. IF INCORPORATED, GIVE STATE OF INCORPORATION			R E C E I V E D Certificate Fee: \$ 300.00 Date November 7, 1995
12. DATE OF INCORPORATION			

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

J.H. Orf
Department of Agronomy and Plant Genetics, 411 Borlaug Hall
University of Minnesota
1991 Upper Buford Circle
St. Paul, MN 55108

PHONE (include area code): (612) 625-8275

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow INSTRUCTIONS on reverse)

- a. ☒ Exhibit A, Origin and Breeding History of the Variety
b. ☒ Exhibit B, Novelty Statement
c. ☒ Exhibit C, Objective Description of Variety
d. ☐ Exhibit D, Additional Description of Variety
e. ☐ Exhibit E, Statement of the Basis of Applicant's Ownership
f. ☒ Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office _____
g. ☒ Filing and Examination Fee (\$2,325) made payable to "Treasurer of the United States"

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See section 83(a) of the Plant Variety Protection Act) ☒ YES (If "YES," answer items 16 and 17 below) ☐ NO (If "NO," skip to item 18 below)

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☒ YES ☐ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☒ FOUNDATION ☒ REGISTERED ☒ CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ YES (If "YES," through ☐ Plant Variety Protection Act ☐ Patent Act. Give date: _____).
☒ NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?

☐ YES (If "YES," GIVE NAMES OF COUNTRIES AND DATES) _____
☒ NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

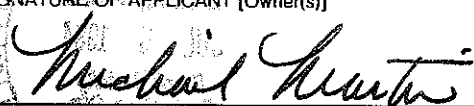
SIGNATURE OF APPLICANT [Owner(s)] 	CAPACITY OR TITLE Associate Dean	DATE May 23, 1994
SIGNATURE OF APPLICANT [Owner(s)]	CAPACITY OR TITLE	DATE

Exhibit A

Origin and Breeding History of Faribault Soybean

'Faribault' soybean traces to the F_5 progeny of a F_4 plant harvested from a population that had been advanced by a modified single seed descent procedure from the cross M75-2 x L77-906. M75-2 has the pedigree Hodgson (4) x [M67-141 x (Chippewa x Higan)]. M67-141 is a selection from the cross Corsoy x Wayne. L77-906 has the pedigree Williams x PI 209332. Bulk seed of the F_5 row was designated M86-1322 and was tested for SCN resistance in the greenhouse and field against soybean cyst nematode race 3 in 1986 (F_6). M86-1322 was yield tested in 1987 (F_7) in Minnesota. Subsequent tests of strain M86-1322 were conducted in Minnesota in the F_8 (1988) and F_9 (1989). In the F_8 (1988) M86-1322 was entered in the maturity group I prelim SCN Regional Test. In 1989 (F_9) M86-1322 was entered in the group I SCN regional test. In the F_9 generation 50 typical plants were harvested individually to initiate purification for observable traits including reaction to race 1 of phytophthora root rot and race 3 of soybean cyst nematode. In the 1990, thirty-nine rows were grown for purification purposes. Fifteen rows appeared uniform for plant and seed characteristics including resistance to race 1 of phytophthora root rot and had very low cyst indices using race 3 of soybean cyst nematode, therefore seed of these rows were bulked to provide breeder's seed. In the F_{10} (1990), F_{11} (1991), F_{12} (1992) and F_{13} (1993) M86-1322 was tested in the Uniform Regional Soybean Test Maturity Group I. In the F_{11} (1991) a small increase of breeders seed was made. In the F_{12} (1992), Foundation seed was produced by the Minnesota Foundation Seed Organization. In the F_{13} (1993) seed was increased and M86-1322 was approved for release as Faribault. On February 15, 1994, seed of Faribault was released to registered and/or certified growers in Minnesota. No off type variants were noted in the seed multiplication process of Faribault over three generations. This variety breeds true and meets certification standards.

Exhibit B

Novelty Statement

'Faribault' soybean is most similar to 'Alpha' soybean. Faribault has approximately the same maturity as Alpha. Yields of Faribault and Alpha are similar. Faribault is about three inches shorter than Alpha. Seed of Faribault is about 0.7 grams per 100 seed smaller than Alpha. Faribault has about 2.1 percent lower protein and 2.1% higher oil than Alpha. Faribault carries the Rps1 gene for phytophthora resistance while Alpha carries no major gene for phytophthora resistance (it is susceptible). Faribault has white flowers while Alpha has purple flowers. Faribault has gray pubescence while Alpha has tawny pubescence. Seed of Faribault has buff hila while seed of Alpha has yellow hila.

Data comparing Faribault and Alpha is taken from the Uniform Test I, Northern States 1990-91 (a total of 28 environments for most traits).

Variety	Date mature	Yield bu/a	Height inches	Lodging score	Seed Quality score	Seed Size g/100	Protein %	Oil %
Faribault	9/15	46.4	34	2.4	2.3	14.1	39.9	21.7
Alpha	9/15	46.2	37	2.7	2.1	14.8	42.0	19.6

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

FORM APPROVED: UMB NO. 0581-0056

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) Minnesota Agricultural Experiment Station	TEMPORARY DESIGNATION M86-1322	VARIETY NAME Faribault
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) University of Minnesota 220 Coffey Hall, 1420 Eckles Avenue St. Paul, MN 55108		FOR OFFICIAL USE ONLY PVPO NUMBER 9400197

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g., 0 9). Starred characters ★ are considered fundamental to an adequate soybean variety description. Other characters should be described when information is available.

1. SEED SHAPE:



1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)

3 = Elongate (L/T ratio > 1.2; T/W < 1.2)

2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)

4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

★ 2. SEED COAT COLOR: (Mature Seed)



1 = Yellow

2 = Green

3 = Brown

4 = Black

5 = Other (Specify) _____

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)



1 = Dull ('Corsoy 79'; 'Braxton')

2 = Shiny ('Nebsoy'; 'Gasoy 17')

★ 4. SEED SIZE: (Mature Seed)



Grams per 100 seeds

★ 5. HILUM COLOR: (Mature Seed)



1 = Buff

2 = Yellow

3 = Brown

4 = Gray

5 = Imperfect Black

6 = Black

7 = Other (Specify) _____

★ 6. COTYLEDON COLOR: (Mature Seed)



1 = Yellow

2 = Green

★ 7. SEED PROTEIN PEROXIDASE ACTIVITY:



1 = Low

2 = High

★ 8. SEED PROTEIN ELECTROPHORETIC BAND:



1 = Type A (SP^{1a})

2 = Type B (SP^{1b})

★ 9. HYPOCOTYL COLOR:



1 = Green only ('Evans'; 'Davis')

2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')

3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')

4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

★ 10. LEAFLET SHAPE:



1 = Lanceolate

2 = Oval

3 = Ovate

4 = Other (Specify) _____

11. LEAFLET SIZE:

- ☐ 2 1 = Small ('Amsoy 71'; 'A5312') 2 = Medium ('Corsoy 79'; 'Gasoy 17')
 3 = Large ('Crawford'; 'Tracy')

12. LEAF COLOR:

- ☐ 2 1 = Light Green ('Weber'; 'York') 2 = Medium Green ('Corsoy 79'; 'Braxton')
 3 = Dark Green ('Gnome'; 'Tracy')

★ 13. FLOWER COLOR:

- ☐ 1 1 = White 2 = Purple 3 = White with purple throat

★ 14. POD COLOR:

- ☐ 2 1 = Tan 2 = Brown 3 = Black

★ 15. PLANT PUBESCENCE COLOR:

- ☐ 1 1 = Gray 2 = Brown (Tawny)

16. PLANT TYPES:

- ☐ 2 1 = Slender ('Essex'; 'Amsoy 71') 2 = Intermediate ('Amcor'; 'Braxton')
 3 = Bushy ('Gnome'; 'Govan')

★ 17. PLANT HABIT:

- ☐ 3 1 = Determinate ('Gnome'; 'Braxton') 2 = Semi-Determinate ('Will')
 3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

★ 18. MATURITY GROUP:

- ☐ 0 ☐ 4 1 = 000 2 = 00 3 = 0 4 = I 5 = II 6 = III 7 = IV 8 = V
 9 = VI 10 = VII 11 = VIII 12 = IX 13 = X

★ 19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

BACTERIAL DISEASES:

- ★ ☐ 0 Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)
 ★ ☐ 0 Bacterial Blight (*Pseudomonas glycinea*)
 ★ ☐ 0 Wildfire (*Pseudomonas tabaci*)

FUNGAL DISEASES:

- ★ ☐ 0 Brown Spot (*Septoria glycines*)
 Frog-eye Leaf Spot (*Cercospora sojina*)
 ★ ☐ 0 Race 1 ☐ 0 Race 2 ☐ 0 Race 3 ☐ 0 Race 4 ☐ 0 Race 5 ☐ Other (Specify) _____
☐ 0 Target Spot (*Corynespora cassicola*)
☐ 0 Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)
☐ 2 Powdery Mildew (*Microsphaera diffusa*)
 ★ ☐ 2 Brown Stem Rot (*Cephalosporium gregatum*)
☐ 0 Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

- ★ ☐ 0 Pod and Stem Blight (*Diaporthe phaseolorum* var. *sojae*)
- ☐ 0 Purple Seed Stain (*Cercospora kikuchii*)
- ☐ 0 Rhizoctonia Root Rot (*Rhizoctonia solani*)
- Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)
- ★ ☐ 2 Race 1 ☐ 0 Race 2 ☐ 1 Race 3 ☐ 0 Race 4 ☐ 0 Race 5 ☐ 0 Race 6 ☐ 0 Race 7
- ☐ 0 Race 8 ☐ 0 Race 9 ☐ Other (Specify) _____

VIRAL DISEASES:

- ☐ 0 Bud Blight (Tobacco Ringspot Virus)
- ☐ 0 Yellow Mosaic (Bean Yellow Mosaic Virus)
- ★ ☐ 0 Cowpea Mosaic (Cowpea Chlorotic Virus)
- ☐ 0 Pod Mottle (Bean Pod Mottle Virus)
- ★ ☐ 0 Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

- Soybean Cyst Nematode (*Heterodera glycines*)
- ★ ☐ 0 Race 1 ☐ 0 Race 2 ☐ 2 Race 3 ☐ 0 Race 4 ☐ Other (Specify) _____
- ☐ 0 Lance Nematode (*Hoplolaimus Colombus*)
- ★ ☐ 0 Southern Root Knot Nematode (*Meloidogyne incognita*)
- ★ ☐ 0 Northern Root Knot Nematode (*Meloidogyne Hapla*)
- ☐ 0 Peanut Root Knot Nematode (*Meloidogyne arenaria*)
- ☐ 0 Reniform Nematode (*Rotylenchulus reniformis*)
- ☐ OTHER DISEASE NOT ON FORM (Specify): _____

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ★ ☐ 1 Iron Chlorosis on Calcareous Soil
- ☐ Other (Specify) _____

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ☐ 0 Mexican Bean Beetle (*Epilachna varivestis*)
- ☐ 0 Potato Leaf Hopper (*Empoasca fabae*)
- ☐ Other (Specify) _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	Alpha	Seed Coat Luster	Hardin
Leaf Shape	Alpha	Seed Size	Alpha
Leaf Color	Alpha	Seed Shape	Alpha
Leaf Size	Alpha	Seedling Pigmentation	Parker

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

9400197

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/POD
				CM Width	CM Length	% Protein	% Oil		
Faribault Submitted	121	2.4	86	81	122	39.9	21.7	14.1	2.4
Alpha Name of Similar Variety	121	2.7	94	80	119	42.0	19.6	14.8	2.4

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.J. Butzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBT1-A₂ in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

Exhibit E**Statement of the Basis of Ownership**

The Minnesota Agricultural Experiment Station is the owner of Faribault soybean. The Minnesota Agricultural Experiment Station of the University of Minnesota is the employer of the breeder who developed Faribault.